

Amendments to the Claims

Please cancel claims 22-30 and 36, substitute the following amended claims 35, 37 and 39-42 for the corresponding previous claims 35, 37 and 39-42, and add new claims 43-51 as follows:

C 1-21 (Previously Canceled)

22 - 30 (Canceled)

31. (Previously Canceled)

32. (Previously Amended) The method of claim 35 wherein said reinforcing layer is a layer of fibers selected from the group consisting of polyamide fibers, polyester fibers, rayon fibers, glass fibers and cotton fibers.

33. (Previously Amended) The method of claim 35 wherein said protective cover layer is a synthetic elastomer selected from the group consisting of styrene-butadiene rubber, acrylonitrile-butadiene rubber, chlorinated polyethylene, chlorosulfonated polyethylene, vinyl ethylene-acrylic rubber, acrylic rubber, epichlorohydrin rubber, polychloroprene rubber, polyvinyl chloride, ethylene-propylene copolymers, ethylene-propylene-diene terpolymer, ultra high molecular weight polyethylene, high density polyethylene, and blends thereof.

34. (Original) The method of claim 33 wherein said protective cover is chlorinated polyethylene.

35. (Currently Amended) A method of producing a flexible polymeric hose having improved fuel vapor barrier properties ~~construction having a fluoropolymer barrier layer for use in a fuel transport system~~ said method comprising the steps of  
forming a first polymeric tubular structure;

forming a second polymeric tubular structure around on said first polymeric tubular structure; ,

forming a reinforcing layer around on said second polymeric structure; , and

forming a protective cover layer around on said reinforcing layer; ;

C wherein one of said first polymeric tubular structure and said second polymeric tubular structure comprises an elastomeric material selected from the group consisting of butadiene-acrylonitrile rubber, epichlorohydrin rubber, and ethylene-acrylic rubber, and the other of said first polymeric tubular structure and said second polymeric tubular structure is a barrier layer comprising a blend of ~~a~~ about 20 to 80 weight percent of a first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer having a fluorine content of about 65 to 73 weight percent fluorine, and about 80 to 20 weight percent of a second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer having a fluorine content of about 70 to 75 weight percent fluorine, said first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer exhibiting elastomeric characteristics, and said a second hexafluoropropylene-tetrafluoroethylene-vinylidene terpolymer fluoropolymer exhibiting thermoplastic characteristics, wherein said first hexafluoropropylene-tetrafluoroethylene-vinylidene exhibits elastomeric characteristics and said second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride exhibits thermoplastic characteristics.

36. (Canceled)

37. (Currently Amended) The method of claim 36 further including the step of forming a third polymeric second-acrylonitrile-butadiene tubular structure selected from the group consisting of butadiene-acrylonitrile rubber, epichlorohydrin rubber, and ethylene-acrylate rubber between said second polymeric tubular structure hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer blend and said reinforcing layer.

38. (Original) The method of claim 35 wherein said first polymeric tubular structure and said second polymeric tubular structure are formed by extrusion.

39. (Currently Amended) The method of claim 37 wherein said ~~third second acrylonitrile-butadiene~~ tubular structure is formed by extrusion.

40. (Currently Amended) A method of producing a flexible polymeric hose having improved fuel vapor barrier properties construction having a fluoropolymer barrier layer for use in a fuel transport system said method comprising the steps of:

extruding a first acrylonitrile-butadiene rubber tubular structure;

extruding a second fluoropolymeric tubular structure around on said first acrylonitrile-butadiene tubular structure; wherein said second fluoropolymeric tubular structure is a barrier layer comprising a blend of about 20 to 80 weight percent of a first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer having a fluorine content of about 65 to 73 weight percent fluorine, and about 80 to 20 weight percent of a second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer having a fluorine content of about 70 to 75 weight percent fluorine, said first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer exhibiting elastomeric characteristics, and said second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer exhibiting thermoplastic characteristics;

forming a reinforcing layer around on said second polymeric structure; and

forming a protective cover layer around on said reinforcing layer, wherein said second fluoropolymeric tubular structure is a barrier layer comprising a blend of about 20 to 80 weight percent of said first hexafluoropropylene-tetrafluoroethylene-vinylidene terpolymer having a fluorine content of about 65 to 73 weight percent fluorine and about 80 to 20 weight percent of a second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride having a fluorine content of about 70 to 75 weight percent fluorine, said first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer exhibiting elastomeric characteristics, and said second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer fluoropolymer exhibiting thermoplastic characteristics.

41. (Currently Amended) A method of producing a flexible polymeric hose having improved fuel vapor barrier properties construction having a fluoropolymer barrier layer for use in a fuel

transport system said method comprising the steps f:

extruding a first acrylonitrile-butadiene rubber tubular structure;

extruding a second fluoropolymeric tubular structure around on said first acrylonitrile-butadiene rubber tubular structure; wherein said second fluoropolymeric tubular structure is a barrier layer comprising a blend of about 20 to 80 weight percent of a first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer having a fluorine content of about 65 to 73 weight percent fluorine, and about 80 to 20 weight percent of a second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer having a fluorine content of about 70 to 75 weight percent fluorine, said first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer exhibiting elastomeric characteristics, and said second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer exhibiting thermoplastic characteristics;

extruding a third acrylonitrile-butadiene rubber tubular structure around on said second fluoropolymeric tubular structure;

forming a reinforcing layer around on said second third acrylonitrile-butadiene rubber tubular polymeric structure; and

forming a protective cover layer around on said reinforcing layer; wherein said second fluoropolymeric tubular structure is a barrier layer comprising a blend of about 20 to 80 weight percent of said first hexafluoropropylene-tetrafluoroethylene-vinylidene terpolymer having a fluorine content of about 65 to 73 weight percent fluorine and about 80 to 20 weight percent of a second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride having a fluorine content of about 70 to 75 weight percent fluorine, said first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer exhibiting elastomeric characteristics, and said second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer fluoropolymer exhibiting thermoplastic characteristics.

42. (Currently Amended) A method of producing a flexible polymeric hose having improved fuel vapor barrier properties construction having a fluoropolymer barrier layer for use in a fuel transport system said method comprising the steps of:

extruding a first fluoropolymeric tubular structure; wherein said first fluoropolymeric tubular structure comprises a blend of about 20 to 80 weight percent of a first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer having a fluorine content of about 65 to 73 weight percent fluorine, and about 80 to 20 weight percent of a second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer having a fluorine content of about 70 to 75 weight percent fluorine, said first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer exhibiting elastomeric characteristics, and said second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer exhibiting thermoplastic characteristics;

extruding a second acrylonitrile-butadiene rubber tubular structure around on said first fluoropolymeric tubular structure;

forming a reinforcing layer around on said second acrylonitrile-butadiene rubber structure; and

forming a protective cover layer around on said reinforcing layer; ~~wherein said fluoropolymeric tubular structure is a barrier layer comprising a blend of about 20 to 80 weight percent of a first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer having a fluorine content of about 65 to 73 weight percent fluorine and about 80 to 20 weight percent of a second hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer having a fluorine content of about 70 to 75 weight percent fluorine; said first hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride terpolymer exhibiting elastomeric characteristics, and said a second hexafluoropropylene-tetrafluoroethylene-vinylidene terpolymer fluoropolymer exhibiting thermoplastic characteristics.~~

43. (New) The method of claim 35 wherein said polymeric tubular structure contains a conductive material.

44. (New) The method of claim 43 wherein said conductive material is carbon black.

45. (New) The method of claim 35 further comprising the step of vulcanizing said covered

reinforced tubular structure with a vulcanizing agent.

46. (New) The method of claim 45 wherein said vulcanizing agent is a peroxide, a polyol or a polyamine vulcanizing agent.

47. (New) The method of claim 45 wherein said vulcanizing agent is present in an amount of about 0.5 to 10%.

48. (New) The method of claim 46 wherein said vulcanizing agent is a peroxide selected from the group consisting of dicumylperoxide and 2,5-dimethyl-2,5-di(t-butylperoxy) hexyne-3.

49. (New) The method of claim 46 wherein said vulcanizing agent is a polyol selected from the group consisting of hexafluoroisopropylidene-bis (4-hydroxyphenyl) hydroquinone and isopropylidene-bis(4-hydroxyphenyl).

50. (New) The method of claim 46 wherein said vulcanizing agent is a polyamine selected from the group consisting of hexamethylenediamine carbamate and alicyclic diamine carbamate.

51. (New) The method of claim 35 wherein said elastomeric material is acrylonitrile-butadiene rubber.